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L20 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS  
AN 2001:119741 CAPLUS  
DN 135:102738  
TI Anticatabolism after severe **burn**: synergism between growth hormone and propranolol  
AU Hart, David W.; Wolf, Steven E.; Lal, Sofia; Obeng, Michael; Wolfe, Robert R.; Herndon, David N.  
CS Department of Surgery, The University of Texas Medical Branch and Shriners Hospitals for Children, Galveston, TX, USA  
SO Surg. Forum (2000), 51, 196-197  
CODEN: SUFOAX; ISSN: 0071-8041  
PB American College of Surgeons  
DT Journal  
LA English  
CC 2-5 (Mammalian Hormones)  
Section cross-reference(s): 1  
AB The catecholamine-mediated hypermetabolic response to severe **burn** is assocd. with exaggerated muscle protein catabolism. Recombinant human growth hormone (rhGH) has been shown to improve net muscle protein synthesis in **burn** patients. Long-term .beta. blockade decreases the elevated resting energy expenditure assocd. with hypermetabolism. A study was conducted to test the hypothesis that the addn. of propanolol to growth hormone will synergistically improve muscle protein kinetics after **burn**. Results indicated that in severely **burned** pediatric patients, the therapeutic combination of rhGH with antagonism of catecholamines by .beta. blockade attenuates hypermetabolism and reverses muscle protein catabolism.  
ST anticatabolism severe **burn** synergism growth hormone propranolol  
IT Development, mammalian postnatal  
(child; synergism between growth hormone and propranolol in anticatabolism after severe **burn** in human pediatric patients)  
IT **Burn**  
Energy metabolism, animal  
Muscle  
Protein degradation  
Translation, genetic  
(synergism between growth hormone and propranolol in anticatabolism after severe **burn** in human pediatric patients)  
IT Adrenoceptor antagonists  
(.beta.-; synergism between growth hormone and propranolol in anticatabolism after severe **burn** in human pediatric patients)  
IT 525-66-6, Propranolol 9002-72-6, Growth hormone  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(synergism between growth hormone and propranolol in anticatabolism after severe **burn** in human pediatric patients)  
RE.CNT 2  
RE  
(1) Breitenstein, E; Burns 1990, V16, P259 MEDLINE  
(2) Gore, D; Arch Surg 1991, V126, P38 MEDLINE

AN 94373257 EMBASE

DN 1994373257

TI Lipolysis in burned patients is stimulated by the .beta.2-receptor for catecholamines.

AU Herndon D.N.; Nguyen T.T.; Wolfe R.R.; Maggi S.P.; Biolo G.; Muller M.; Barrow R.E.; Forse R.A.; Bessey P.Q.

CS Burns Institute, Shriners Hosp. for Crippled Children, 815 Market St, Galveston, TX 77550-2725, United States

SO Archives of Surgery, (1994) 129/12 (1301-1305).

ISSN: 0004-0010 CODEN: ARSUAX

CY United States

DT Journal; Article

FS 009 Surgery

037 Drug Literature Index

LA English

SL English

AB Objective: To determine if the cardiovascular effects of excessive catecholamines could be selectively blocked in severely **burned** patients without adversely affecting protein or fat kinetics. Design: Prospective cohort study. Setting: A large tertiary care referral center in Galveston, Tex. Patients: Sixteen patients with greater than 40% body surface area **burns**. Interventions: Patients were randomly selected to receive **propranolol** hydrochloride, a nonselective .beta.1- and .beta.2-blocker, or metoprolol tartrate, a selective .beta.1-blocker. Main Outcome Measures: Heart rate; rate-pressure product; rate of appearance of urea, glucose, and leucine; and leucine oxidation were measured before and after selective or nonselective .beta.-adrenergic blockade. Results: **Propranolol** and metoprolol caused a significant decrease in heart rate, from a mean (.+-SD) of 143.+-15 to 115.+-11 and from 147.+-17 to 120.+-9 beats per minute, respectively, during the 5-day study period. Neither the rate of appearance of urea nor the rate of urea production were significantly altered by **propranolol** or metoprolol therapy. Only **propranolol** produced a significant decrease ( $P<.05$ ) in the rate of appearance of glycerol, from a mean (.+-SD) of 5.54.+-0.62 to 3.07.+-0.7  $\mu\text{mol}/\text{kg}$  per minute. The rate of appearance of leucine, used as an index of total body protein **catabolism**, was not significantly altered by either .beta.- blocker. Conclusions: Selective .beta.1-adrenergic blockade did not reduce lipolysis; however, a .beta.1- and .beta.2-adrenergic blockade significantly reduced lipolysis. Thus, the increased lipolysis, characteristic of severely **burned** patients, is caused by stimulation of the .beta.2-adrenergic receptors for catecholamines.

CT Medical Descriptors:

\*burn: TH, therapy

\*lipolysis

amino acid metabolism

article

cardiovascular effect

catecholamine release

clinical article

clinical trial

drug effect

drug selectivity

heart rate

human

intravenous drug administration

isotope labeling

metabolic parameters

priority journal

protein degradation

thermal injury: TH, therapy

urea cycle

Drug Descriptors:

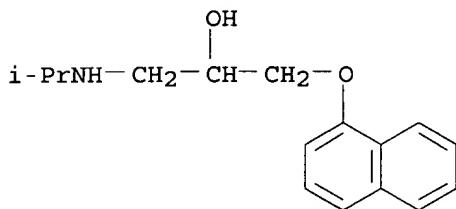
\*beta 2 adrenergic receptor

beta 1 adrenergic receptor

\*beta 1 adrenergic receptor blocking agent: CT, clinical trial

\*beta 1 adrenergic receptor blocking agent: AD, drug administration

=> s propranolol/cn  
L1 1 PROPRANOLOL/CN  
  
=> d  
  
L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 525-66-6 REGISTRY  
CN 2-Propanol, 1-[(1-methylethyl)amino]-3-(1-naphthalenyl) - (9CI) (CA  
INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propanol, 1-(isopropylamino)-3-(1-naphthyl) - (7CI, 8CI)  
OTHER NAMES:  
CN (.-.)-Propranolol  
CN .beta.-Propranolol  
CN 1-(1-Naphthyl)-3-(isopropylamino)-2-propanol  
CN 1-(Isopropylamino)-3-(1-naphthyl)-2-propanol  
CN AY 64043  
CN Betalong  
CN dl-Propranolol  
CN DL-Propranolol  
CN **Propranolol**  
CN Proprasylt  
CN Racemic propranolol  
CN Reducor  
FS 3D CONCORD  
DR 13013-17-7  
MF C16 H21 N O2  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,  
CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSNB, DDFU, DIOGENES, DRUGPAT,  
DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*,  
NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS\*, SPECINFO, TOXCENTER,  
TOXLIT, ULIDAT, USAN, USPATFULL, VETU  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

8905 REFERENCES IN FILE CA (1967 TO DATE)  
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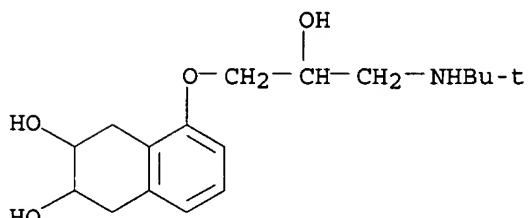
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L2          1 TIMOLOL/CN

=> d

L2  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2001 ACS
RN  26839-75-8  REGISTRY
CN  2-Propanol, 1-[(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-
      thiadiazol-3-yl]oxy]-, (2S)- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
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Other Sources: EINECS\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



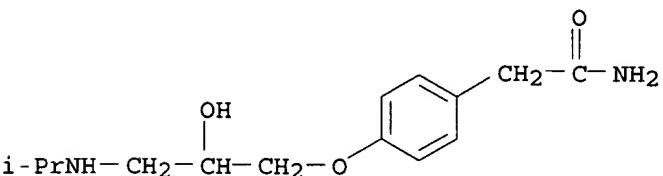
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616 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> s atenolol/cn  
L4 1 ATENOLOL/CN

=> d

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 29122-68-7 REGISTRY  
CN Benzeneacetamide, 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy] - (9CI)  
(CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Acetamide, 2-[p-[2-hydroxy-3-(isopropylamino)propoxy]phenyl] - (8CI)  
OTHER NAMES:  
CN (.+-.)-Atenolol  
CN (RS)-Atenolol  
CN Atenolol  
CN DL-Atenolol  
CN dl-Atenolol  
CN Duraatenolol  
CN ICI 66082  
CN Tenormin  
FS 3D CONCORD  
DR 106020-65-9, 60966-51-0  
MF C14 H22 N2 O3  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,  
CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGPAT, DRUGU,  
EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS,  
NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS\*, SPECINFO, SYNTHLINE,  
TOXCENTER, TOXLIT, USAN, USPATFULL, VETU  
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(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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14 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
2262 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> s metoprolol/cn  
L5 1 METOPROLOL/CN

=> d

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 51384-51-1 REGISTRY  
CN 2-Propanol, 1-[4-(2-methoxyethyl)phenoxy]-3-[(1-methylethyl)amino]- (9CI)  
(CA INDEX NAME)

OTHER NAMES:

CN (.+-.)-Metoprolol  
CN (RS)-Metoprolol  
CN 1-Isopropylamino-3-[4-(2-methoxyethyl)phenoxy]-2-propanol  
CN Beatrolol  
CN Beloc-Zok  
CN CGP 2175  
CN dl-Metoprolol  
CN Metoprolol  
CN Spesicor

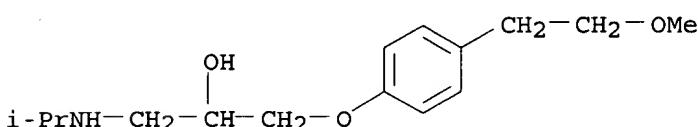
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IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, NIOSHTIC, PHAR, PHARMASEARCH,  
PROMT, RTECS\*, SPECINFO, TOXCENTER, TOXLIT, ULIDAT, USAN, USPATFULL,  
VETU

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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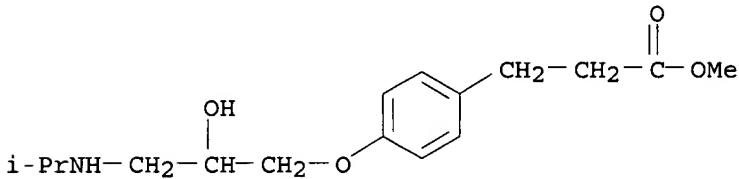
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L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 81147-92-4 REGISTRY  
CN Benzenepropanoic acid, 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-, methyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (.+-.)-Esmolol

CN ASL 8052-001  
 CN Brevibloc  
 CN Esmolol  
 FS 3D CONCORD  
 DR 103598-03-4, 84057-94-3  
 MF C16 H25 N O4  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
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     DRUGU, DRUGUPDATES, EMBASE, HSDB\*, IFICDB, IFIUDB, IPA, MEDLINE, MRCK\*,  
     PHAR, PROMT, RTECS\*, SYNTHLINE, TOXCENTER, TOXLIT, USAN, USPATFULL, VETU  
     (\*File contains numerically searchable property data)  
 Other Sources: WHO



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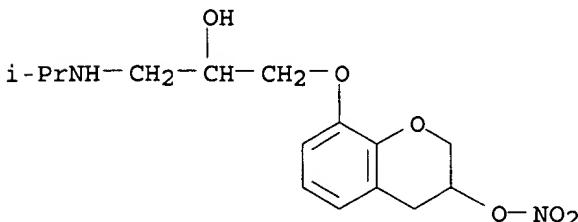
=> s nipradilol/cn  
 L7 1 NIPRADIOL/CN

=> d

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 81486-22-8 REGISTRY  
 CN 2H-1-Benzopyran-3-ol, 3,4-dihydro-8-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-, 3-nitrate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Hypadil  
 CN K 351  
 CN KT 210  
 CN Nipradilol  
 FS 3D CONCORD  
 MF C15 H22 N2 O6  
 CI COM  
 LC STN Files: ADISNEWS, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
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     EMBASE, IPA, MEDLINE, MRCK\*, PHAR, PROMT, RTECS\*, SYNTHLINE, TOXCENTER,  
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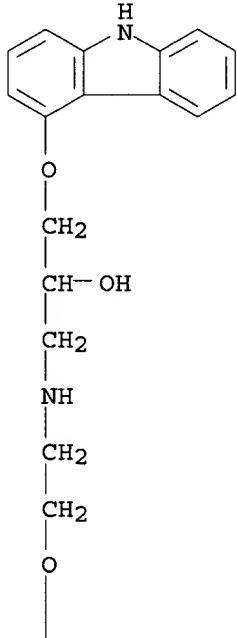
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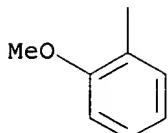
=> s carvedilol/cn  
L8 1 CARVEDILOL/CN

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 72956-09-3 REGISTRY  
CN 2-Propanol, 1-(9H-carbazol-4-yloxy)-3-[[2-(2-methoxyphenoxy)ethyl]amino]-  
(9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN (.-.-.)-Carvedilol  
CN BM 14190  
CN Carvedilol  
CN Coreg  
CN DQ 2466  
CN SKF 105517  
FS 3D CONCORD  
DR 107741-96-8  
MF C24 H26 N2 O4  
CI COM  
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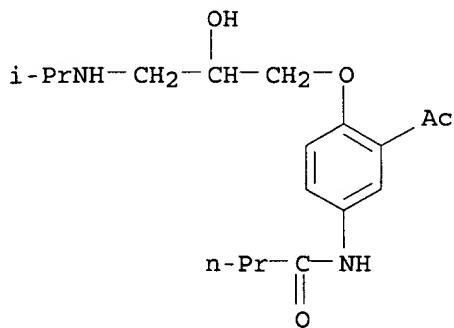
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=> s acebutolol/cn  
 L9 1 ACEBUTOLOL/CN

=> d

L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 37517-30-9 REGISTRY  
 CN Butanamide, N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]phenyl]- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Butanamide, N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]phenyl]-, (.-+.-)-  
 OTHER NAMES:  
 CN (.-+.-)-Acebutolol  
 CN Acebutolol  
 CN dl-Acebutolol  
 CN Neptal  
 FS 3D CONCORD  
 DR 28197-63-9  
 MF C18 H28 N2 O4  
 CI COM  
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